DEP ISSUE PROFILE

Overboard Discharges

Updated: September 2003 **Contact:** (207) 287-3901

What is an overboard discharge?

An overboard discharge (OBD) is the discharge of wastewater from residential, commercial, and publicly owned facilities to Maine's streams, rivers lakes, and the ocean. Commercial and residential discharges of sanitary waste have been regulated since the mid-1970's when most direct discharges of untreated waste were banned. Between 1974 and 1987 most of the "straight pipes" were connected to publicly-owned treatment works or replaced with standard septic systems. Overboard discharge treatment systems were installed for those facilities that were unable to connect to publicly-owned treatment works or unable to install a septic system because of poor soil conditions or small lot sizes.

Approximately 1,688 OBDs licensed residential or commercial OBDs remain throughout the state today. This is roughly half the number of OBDs documented to be in existence in 1987.

Why are overboard discharges a problem?

All overboard discharge systems include a process to clarify the wastewater then disinfect it prior to discharge. If they are not properly maintained or if they malfunction, they have the potential to discharge the harmful bacteria and other pathogens directly into the water.

In 1987, 25 percent of Maine's estimated 49,000 acres of mussel and clam habitat were closed because of actual contamination or the threat of contamination by bacteria and other pathogens from septic systems, boats, animals, and overboard discharges. Today, roughly 8 percent of Maine's mussel and clam habitat are still closed to shellfish harvesting.

What are the legal requirements of the overboard discharges laws?

The overboard discharge laws exist:1) to encourage the reopening of the shellfish harvesting areas by eliminating OBDs from those areas; 2) to ensure compliance with state regulations requiring maintenance of existing overboard discharge systems; and 3) to improve the quality of Maine's waters by replacing OBDs with conventional septic systems or municipal service wherever practicable. The laws accomplish this goal by:

- Requiring OBD owners to obtain and maintain licenses for their overboard discharges.
- Prohibiting new non-municipal sanitary wastewater discharges to Maine waters. The law defines a new discharge as any source of wastewater that was not licensed as of June 1, 1987.
- Prohibiting the expansion of existing OBDs. Under the law, adding sources of wastewater to a licensed OBD system (including additional bedrooms), increasing the number of months when a seasonal discharge occurs, and increasing the licensed flow or quantity generated by the discharge are all prohibited.
- Requiring that alternate disposal methods be investigated as replacements for existing overboard discharges.
- Creating a bond-funded grant program to help OBD owners replace their OBDs with non-discharging septic systems.
- Requiring the Department of Environmental Protection (DEP) to inspect all existing OBDs yearly.

In May of 2003, the legislature adopted several additional amendments. Effective September 13, 2003, these amendments changed the funding formula for the grant program to one based on income, and increased the annual inspection and license fees. The amendments add the following requirements:

- Buyers and the sellers of properties served by OBDs must obtain a qualified Licensed Site Evaluator's evaluation of whether the OBD can be replaced with a technologically feasible non-discharging alternative system prior to sale of the property. A qualified Licensed Site Evaluator is one who has demonstrated experience in designing replacement systems for OBDs.
- New owners must install the non-discharging alternative system within 90 days of the property transfer if one is identified by the Licensed Site Evaluator.
- OBD licensees must obtain a Licensed Site Evaluator's evaluation of whether the OBD can be replaced with a technologically feasible non-discharging alternative prior to applying for renewal of their OBD licenses.
- Licensees must install the non-discharging alternative system within 180 days of the DEP acceptance of an application for license renewal if such a system exists and if OBD removal grant money is available.

Unlicensed discharges, including discharges from "straight pipes" are NOT "grandfathered". They are illegal and must be replaced by approved subsurface or licensed overboard discharge systems or connected to a publicly-owned treatment works.

What should I do if I am selling a property with an OBD?

If you plan to sell your property, provide your realtor with a copy of the most recent license/permit and inspection report. You (or your realtor) should contact the DEP to verify the license information, discuss how the law changes affect your property, determine any restrictions that may apply to your property and obtain a transfer application. A qualified Licensed Site Evaluator must be hired by the buyer and/or seller to determine whether there is any approvable technologically feasible alternative to the OBD consistent with the Maine State Plumbing Code. You must submit the Licensed Site evaluator's findings to the DEP for review prior to sale. The buyer or seller may apply for reimbursement through the OBD removal grant program if installation of an alternative system is required. They must apply before installation and follow the plans and specifications approved by the grant program manager (*see contact information on last page*).

What must I do if I have just received (purchased, inherited, etc.) a property with an OBD?

Overboard Discharge (OBD) licenses must be transferred to the new owner every time a property changes hands. If the license has expired, it must be renewed at this time. The primary exhibits for a license transfer are the completed application for transfer, a copy of the deed reflecting the new ownership and the results of a Licensed Site Evaluator's determination of the feasibility of installing an alternative to the OBD.

What must I do if my OBD license has expired?

It is the property owner's responsibility to maintain a current overboard discharge license. The OBD license must be renewed every five years. Additionally, the DEP is developing a schedule for license renewal based on the waterbody the OBD impacts and contacting owners according to that schedule. Before applying for renewal, you will be required to have a qualified Licensed Site Evaluator examine your property to determine if there is an approvable technologically feasible alternative to your OBD system. The primary exhibits for a application for renewal are the completed application for renewal, the results of a Licensed Site Evaluator's determination of the feasibility of installing an alternative to the OBD and documented proof of notification of abutters of your intent to file an application for license renewal.

You will be issued a 5 year renewable license if you haven't significantly changed the use of your property, your treatment system is working well, the discharge does not lower water quality in the area, and there is not currently an approvable technologically feasible alternative to your OBD (or OBD grant money is not offered).

Applications for license transfer and/or renewal are available upon request (207) 287-3901 or on the web here: http://www.state.me.us/dep/blwq/docstand/OBD/obdresapp.pdf (adobe acrobat) or here: http://www.state.me.us/dep/blwq/docstand/OBD/obdresapp.doc (MSword97format).
When you submit your application for renewal or transfer, please be sure to submit all requested information, otherwise your application will be considered incomplete and processing will be delayed.

What is the OBD Removal Grant Program?

The bond-funded Overboard Discharge Removal Grant Program was established to remove discharges to valuable shellfish areas, thereby opening them for harvest and to remove public nuisance conditions. Discharges are scheduled for removal according to a priority list generated by DEP and the Department of Marine Resources. Grant money is offered to OBD owners in targeted areas for removal and replacement of their system according to their income according to the following table:

Applicant's income (based on previous year's federal tax return):	OBD removal reimbursement:
Residential OBD. Less than $25,000 per year taxable income	100 percent
Residential OBD. $25,001- $50,000 per year taxable income	90 percent
Residential OBD. $50,001 -$75,000 per year taxable income	50 percent
Residential OBD. $75,001 - $100,000 per year taxable income	35 percent
Residential OBD. $100,001 per year or more taxable income	25 percent
Publicly owned OBD.	50 percent ($150,000 maximum)

Because public funds are limited and the grants can only be made as money becomes available, funding priority is given to owners of OBDs that discharge to high-value shellfish areas. Some reimbursement funds are available to those who apply for money to remove their systems. The DEP encourages all licensees to pursue alternate wastewater disposal regardless of the availability of grant money because of the tremendous ecological and economic importance of restoring Maine's water quality in shellfish harvesting areas.

How do I apply for an OBD removal grant?

If you are interested in receiving grant funds, a grant application packet is available upon request by telephone (207) 287-7765, or by mail. Once you have obtained a Form HHE-200 design for an alternative to your OBD from a qualified Licensed Site Evaluator, you must contact the grant program manager (207) 287-7765 to discuss how to proceed and to complete any necessary paperwork (*contact information below*). In brief, you will need to get the Form HHE-200 design approved by the Local Plumbing Inspector and/or the state Division of Health Engineering, and get several cost bids for system installation.

How does my overboard discharge system work?

The wastewater from most OBD facilities receives *secondary treatment* before being *disinfected* and *discharged*. There are two general types of treatment systems; mechanical package plants and sand filters.

Sand filter systems consist of a septic tank and a sand filter. When you flush a toilet or wash the dishes, the wastewater is first contained in a septic tank where most of the solids settle out and are partially digested by microbes. The wastewater flows from the septic tank into a sand filter, consisting of distribution pipes, layers of stone and filter sand, and collection pipes within a plastic liner. The wastewater is biologically treated as it filters down through the sand, collected and discharged to a disinfection unit.

Mechanical package plants consist of a tank where waste is broken up, mixed and aerated. Wastes are digested by naturally occurring bacteria. The aerated treated water is held in a calm condition for a time while the solids settle to the bottom. The clarified water is pumped off the top and through a disinfection unit. **If you have a mechanical system, the law requires you to have a contract with a licensed service contractor to maintain the unit.** DEP inspectors will look for a tag on the treatment unit identifying the service contractor and the last date of service. All mechanical systems require power, so be sure that power is supplied to the unit and that it is turned on. Mechanical treatment systems must have an operating alarm on a separate electrical circuit so that the alarm will activate if the treatment unit malfunctions.

Both systems discharge treated wastewater to a *disinfection unit***.** There are two types of disinfection units, *UV* and *chlorinators* (most common). In a chlorinator, the treated water contacts chlorine tablets and remains in a tank for at least 20 minutes where bacteria and other pathogens are killed. The treated and disinfected water is discharged from the disinfection unit to below the low water mark of the receiving waterbody (the ocean, a river, or a stream) via an *outfall pipe*.

How do I maintain my overboard discharge treatment system?

Chemicals can kill the "friendly" microorganisms that digest the wastes in your treatment system and will eventually wind up in the receiving waterbody. Because of this, toxic chemicals, harsh cleaners, paint, or non-biodegradable materials should not go down the drain. Using low-flow toilets and water saving showerheads will prolong the life of your treatment system. The sand filter bed or mechanical filter tank and the disinfection unit should be kept clear of woody perennials, shrubs, and trees. The sand filter septic tank should be pumped every three to five years and the filter bed surface should be mowed at least once per year. If wet spots appears on or near the sand filter bed notify the DEP inspector. Mechanical systems like consistent use and tend to malfunction when overloaded on the weekend and "starved" during the week. Try to manage laundry, cleaning, and showers so the load is spread out as evenly as possible.

The OBD owner (or a contracted licensed service provider) should check the chlorine every two weeks and keep fresh chlorine in contact with the treated wastewater. Don't overfill the chlorinator. Only the bottom two or three inches should have chlorine. Old, brown or mushy chlorine does not properly disinfect and must be replaced. The outfall pipe must extend to below the low water mark of the receiving waterbody. A properly functioning system may smell earthy but not foul. The treated wastewater should be clear and without a strong septic or chlorine odor. If the wastewater in the disinfection unit is not nearly clear, smells like rotten eggs, raw sewage, or smells strongly of chlorine, call your service contractor!

How much are my annual fees?

Starting in 2004, the annual bills will only have one fee, the annual license fee. This fee contains a base fee that varies depending on the type of facility and a per-gallon discharge charge based on your licensed discharge. For an average single family dwelling the base fee is $175 plus a $15 discharge fee ($0.05 per gallon x 300 for an average dwelling) for a total of $190. The new legislation eliminated the fee reductions for licensees who have a contract with a service provider for OBD maintenance. The new law allows for a $125 fee reduction for licensees with an adjusted gross income of less than $15,000. Large residential, commercial, and publicly owned discharges have higher base fees. The new fee schedule will be sent out with the annual fee bills. The annual fee pays for the management of the program, which includes three full time staff and six seasonal inspectors, along with the supplies, and support needed to manage a program of this size. As the number of OBDs goes down through removal, the DEP has planned to reduce the size of the staff accordingly.

For more information:

If you have questions about:	Contact	Telephone	Email
License transfers/renewals, selling a property with an OBD, general program questions	Mike Demarest	(207) 287-3901	michael.demarest@Maine.gov
	Mary Morgan	(207) 287-3901	mary.morgan@Maine.gov
OBD system compliance, inspections, or inspection reports	Chris Johnson	(207) 287-7684	christopher.p.johnson@Maine.gov
OBD removal grant program	Richard Green	(207) 287-7765	richard.a.green@Maine.gov

If you prefer to write us, all of the staff above can be reached at:

Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Please be sure to visit the DEP website through www.MaineDEP.com or http://www.state.me.us/dep/index.shtml